

TROPICAL RAINFALL MEASURING MISSION

July 30, 2001 - August 5, 2001

DOY 211 - 217

Day of Mission 1341 - 1347

TRMM MISSION OPERATIONS

- TRMM is flying in the +X Forward direction as of July 25th (01-206) at 04:14:33z.
- Yaw maneuver #61 to -X Forward is currently scheduled for August 23rd (01-235).
- Delta-V #326 is scheduled for August 7th (01-219), using the LBS thrusters.
- The Beta angle range for 01-218 to 01-224 is +45.02° to +50.50°.
- The next Monthly Status Review (MSR) is scheduled for August 29th (01-241).
- The next Configuration Control Board (CCB) meeting is scheduled for August 30th (01-242).

TRMM SUBSYSTEM OPERATIONS

NASA HQ has granted authorization to begin with the 402.5 km boost activities on August 7th (01-219).

Attitude Control System (ACS)

01-212 (Tuesday, July 31st)

Delta-V maneuver #324 was successfully conducted at 15:20:08z and 16:05:58z for durations of 40.000 and 17.125 seconds respectively, using the LBS thrusters. The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 25.3% and 20.4% (74.7% and 79.6% on time). The off-modulation of the -Yaw thruster (#1) for burn 1 was 4.7% (95.3% on time). The remaining fuel is 392.618 kg, the current GN2 pressure is 590.625 psia, and the final apogee and perigee height is 354.75 km x 347.42 km.

01-217 (Sunday, August 5th)

Delta-V maneuver #325 was successfully conducted at 14:01:21z and 14:47:06z for durations of 32.125 and 17.500 seconds respectively, using the LBS thrusters. The off-modulation of the +Pitch thruster (#2) for burns 1 and 2 was 23.7% and 20.0% (76.3% and 80.0% on time). The remaining fuel is 391.408 kg, the current GN2 pressure is 590.625 psia, and the final apogee and perigee height is 354.67 km x 347.64 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The UTCF was adjusted by -829.0 μ s on August 3rd (01-215) at 22:53:32z. The new value is 31535996.819310 seconds and the current drift value is -185.5 μ s. The Frequency Standard remains at x'7C6' with a current drift rate of -3.82 μ s/hr.

01-211 (Monday, July 30th)

S/C System Tables 54 and 81 were loaded to RAM.

01-213 (Wednesday, August 1st)

New RTS 117 was loaded to the S/C processor for execution of longer Delta-v burns.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem performed nominally during this period.

Electrical Subsystem

The Electrical subsystem performed nominally during this period.

Thermal Subsystem

The Thermal subsystem performed nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

CERES was powered off on 01-149 (Tuesday, May 29th, 2001).

LIS

The LIS instrument performed nominally during this period. A routine command request to reduce the accumulation of packet sequence errors was performed on July 31st (01-212).

PR

The PR instrument performed nominally during this period.

01-211 (Monday, July 30th)

A PRLOGAMPCHECK command request was performed at 12:40z.

The list of External Calibrations times is shown below:

Beam Number	Start Time	Stop Time
31	01-216-17:38:41z	01-216-17:43:42z
64	01-217-16:26:00z	01-217-16:31:01z
59	01-217-18:02:26z	01-217-18:07:27z

The list of Internal Calibration times over Australia in which PR was not radiating is shown below:

01-211-12:18:36 – 12:20:48z
01-212-04:37:39 – 04:40:59z
01-212-12:41:00 – 12:43:07z
01-213-11:29:43 – 11:31:54z
01-214-03:47:41 – 03:52:45z

01-214-11:53:06 – 11:54:41z
01-215-10:41:02 – 10:43:11z
01-216-02:59:09 – 03:03:06z
01-216-09:29:30 – 09:31:44z
01-217-09:52:02 – 09:54:10z

TMI

The TMI instrument performed nominally during this period.

VIRS

The VIRS instrument performed nominally during this period.

GROUND SYSTEM

The /hist1 disk failed due to overheating and was replaced on Friday, August 3rd (01-215).

Event Reports

ER # 239: /Hist1 Failure causing TR1WS2 to self-reboot on 01-212.

ER # 240: Modulator Doppler Predictor (MDP) Fault at WSC on 01-217.

Generic Late Acquisition Reports (for TTRs 19639)

No Generic Late Acquisitions occurred during this period.

New Anomalies

No new anomalies occurred during this period.

Recurring/Open Anomalies

No open anomalies recurred during this period.

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